985373

PA-Score Report

Screening Site Inspection

for

D.M. Fertilizer, Inc..

ILD 087 157 947

CONFIDENTIAL

September 15, 1995

Prepared for
U.S. Environmental Protection Agency
Contract 68-W8-0064
Work Assignment 29-5JZZ

OMB Approval Number: 2050-0095
Approved for Use Through: 4/95

POTENTIAL HAZARDOUS WASTE SITE PRELIMINARY ASSESSMENT FORM	IDENTIFICATION	
	State: IL	CERCLIS Number: ILD087157947
	CERCLIS Discovery Date: 11/20/89	

1. General Site Information

Name:		Street Address:			
DM Fertilizer		Intersection of Routes 9 and 3			
City:	State:	Zip Code:	County:	Co. Code:	Cong. Dist:
Hoopeston	IL	60942	Vermillion	183	15
Latitude: 40° 27' 36.5"	Longitude: 87° 35' 34.0"	Approx. Area of Site: 304920 sq feet		Status of Site: Active	

2. Owner/Operator Information

Owner:			Operator:		
redacted exemption 6			redacted exemption 6		
Street Address: redacted exemption 6			Street Address: redacted exemption 6		
City: Hoopeston			City: Hoopeston		
State: IL	Zip Code: 60942	Telephone: (217) 339-2242	State: IL	Zip Code: 60942	Telephone: (217) 339-2242
Type of Ownership: Private			How Initially Identified: State/Local Program		

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3. Site Evaluator Information

Name of Evaluator: ARCS V Contractor	Agency/Organization: USEPA	Date Prepared: 11/18/93
Street Address: 77 West Jackson Blvd.	City: Chicago	State: IL
Name of EPA or State Agency Contact: Alan Altur	Telephone: (312) 886-0390	
Street Address: 77 West Jackson (HSMA-5J)	City: Chicago	State: IL

4. Site Disposition (for EPA use only)

Emergency Response/Removal Assessment Recommendation: No Date:	CERCLIS Recommendation: Other Date:	Signature: Name: Position:

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5. General Site Characteristics

Predominant Land Uses Within 1 Mile of Site:	Site Setting:	Years of Operation:
Agricultural	Rural	Beginning Year: 1978 Ending Year: 1994

Type of Site Operations:	
Manufacturing Agricultural Chemicals	Waste Generated: Onsite
	Waste Deposition Authorized By: Present Owner
	Waste Accessible to the Public: No
	Distance to Nearest Dwelling, School, or Workplace: 400 Feet

6. Waste Characteristics Information

No Sources	General Types of Waste: Pesticides/Herbicides
	Physical State of Waste as Deposited: Liquid Powder

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7. Ground Water Pathway

Is Ground Water Used for Drinking Water Within 4 Miles: Yes Type of Ground Water Wells Within 4 Miles: Municipal, Private	Is There a Suspected Release to Ground Water: No Have Primary Target Drinking Water Wells Been Identified: Yes Primary Target Population: 3	List Secondary Target Population Served by Ground Water Withdrawn From:
Depth to Shallowest Aquifer: 20 Feet Karst Terrain/Aquifer Present: No	Nearest Designated Wellhead Protection Area: >0 - 4 Miles	0 - 1/4 Mile: 19 >1/4 - 1/2 Mile: 58 >1/2 - 1 Mile: 231 >1 - 2 Miles: 926 >2 - 3 Miles: 1543 >3 - 4 Miles: 2160 Total: 4937

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8. Surface Water Pathway — Part 1 of 4

Type of Surface Water Draining Site and 15 Miles Downstream:	Shortest Overland Distance From Any Source to Surface Water:
River Other: Drainage ditch	2600 Feet 0.5 Miles
Is there a Suspected Release to Surface Water: Yes	Site is Located in: >100 yr - 500 yr floodpla

8. Surface Water Pathway — Part 2 of 4

Drinking Water Intakes Along the Surface Water Migration Path: Yes

Have Primary Target Drinking Water Intakes Been Identified: No

Secondary Target Drinking Water Intakes:

Name	Water Body/Flow(cfs)	Population Served
None	minimal stream/ <10	0
	Total Within 15 Miles:	0

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8. Surface Water Pathway — Part 3 of 4

Fisheries Located Along the Surface Water Migration Path: Yes

Have Primary Target Fisheries Been Identified: Yes

Secondary Target Fisheries:
None

8. Surface Water Pathway — Part 4 of 4

Wetlands Located Along the Surface Water Migration Path? (y/n) Yes

Have Primary Target Wetlands Been Identified? (y/n) No

Secondary Target Wetlands:
None

Other Sensitive Environments Along the Surface Water Migration Path: Yes

Have Primary Target Sensitive Environments Been Identified: Yes

Secondary Target Sensitive Environments:
None

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9. Soil Exposure Pathway

Are People Occupying Residences or Attending School or Daycare on or Within 200 Feet of Areas of Known or Suspected Contamination: No	Number of Workers Onsite: 1 - 100

Have Terrestrial Sensitive Environments Been Identified on or Within 200 Feet of Areas of Known or Suspected Contamination: Yes

Terrestrial Sensitive Environments:

Critical habitat for Federally designated endang/threat species

10. Air Pathway

Total Population on or Within:	
Onsite	15
0 - 1/4 Mile	19
>1/4 - 1/2 Mile	58
>1/2 - 1 Mile	231
>1 - 2 Miles	926
>2 - 3 Miles	1543
>3 - 4 Miles	2160
Total	4952

Is There a Suspected Release to Air: No

Wetlands Located Within 4 Miles of the Site: No

Other Sensitive Environments Located Within 4 Miles of the Site: Yes

Sensitive Environments Within 1/2 Mile of the Site:

Distance	Sensitive Environment Type/Wetlands Area(acres)
Onsite	Habitat for Federally designated endangered/threatened species

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PA-Score

PA Scoresheets

Site Name: DM Fertilizer
CERCLIS ID No.: ILD087157947
Street Address: Intersection of Routes 9 and 3
City/State/Zip: Hoopeston, IL 60942

Investigator: ARCS V Contractor
Agency/Organization: USEPA
Street Address: 77 West Jackson Blvd.
City/State: Chicago, IL

Date: 11/18/93

WASTE CHARACTERISTICS

Waste Characteristics (WC) Calculations:

** Only First WC Page Is Printed **	Waste Characteristics Score: WC = 0

Ground Water Pathway Criteria List
Suspected Release

Are sources poorly contained? (y/n/u)	U
Is the source a type likely to contribute to ground water contamination (e.g., wet lagoon)? (y/n/u)	N
Is waste quantity particularly large? (y/n/u)	N
Is precipitation heavy? (y/n/u)	N
Is the infiltration rate high? (y/n/u)	N
Is the site located in an area of karst terrain? (y/n)	N
Is the subsurface highly permeable or conductive? (y/n/u)	U
Is drinking water drawn from a shallow aquifer? (y/n/u)	Y
Are suspected contaminants highly mobile in ground water? (y/n/u)	N
Does analytical or circumstantial evidence suggest ground water contamination? (y/n/u)	N

Other criteria? (y/n) Y Source has been removed.

SUSPECTED RELEASE? (y/n) N

Summarize the rationale for Suspected Release:

The preliminary assessment states groundwater contamination has not been documented in analysis of samples collected from the onsite well; however, a neighboring private well user reported water drawn from their shallow private well about 400 feet northeast of the site has a foul odor and bad taste, most notably after a heavy rain.

Within 4 miles of the site, all rural residences and the city of Hoopeston use groundwater as a drinking water source.

The source has been removed. Two clay samples collected from the floor of the excavation were tested for the presence of herbicides. The analysis failed to detect the target herbicides.

Several product tanks exist on the site; however, they are well contained.

Ref: 1,2,3

Ground Water Pathway Criteria List
Primary Targets

Is any drinking water well nearby? (y/n/u)	Y
Has any nearby drinking water well been closed? (y/n/u)	N
Has any nearby drinking water well user reported foul-testing or foul-smelling water? (y/n/u)	Y
Does any nearby well have a large drawdown/high production rate? (y/n/u)	U
Is any drinking water well located between the site and other wells that are suspected to be exposed to a hazardous substance? (y/n/u)	N
Does analytical or circumstantial evidence suggest contamination at a drinking water well? (y/n/u)	U
Does any drinking water well warrant sampling? (y/n/u)	U

Other criteria? (y/n) N

PRIMARY TARGET(S) IDENTIFIED? (y/n) N

Summarize the rationale for Primary Targets:

The closest private drinking water well is about 400 feet northwest of the site. A user of this well stated the well water had a foul odor and taste, particularly during or shortly after heavy rains.

Ref: 1,2

GROUND WATER PATHWAY SCORESHEETS

Pathway Characteristics

		Ref.
Do you suspect a release? (y/n)	No	
Is the site located in karst terrain? (y/n)	No	1
Depth to aquifer (feet):	20	1
Distance to the nearest drinking water well (feet):	400	1

LIKELIHOOD OF RELEASE	Suspected Release	No Suspected Release	References
1. SUSPECTED RELEASE	0		
2. NO SUSPECTED RELEASE		500	
LR =	0	500	

Targets

TARGETS	Suspected Release	No Suspected Release	References
3. PRIMARY TARGET POPULATION 3 person(s)	30		
4. SECONDARY TARGET POPULATION Are any wells part of a blended system? (y/n) Y	53	0	
5. NEAREST WELL	50	0	
6. WELLHEAD PROTECTION AREA >0 - 4 Miles	5	0	
7. RESOURCES	5	0	
T =	143	0	

WASTE CHARACTERISTICS

WC =	0	0

GROUND WATER PATHWAY SCORE:	0

Ground Water Target Populations

Primary Target Population Drinking Water Well ID	Dist. (miles)	Population Served	Reference	Value
1 Williams private well	0.08	3	2	30

*** Note : Maximum of 5 Wells Are Printed *** Total 30

Secondary Target Population Distance Categories	Population Served	Reference	Value
0 to 1/4 mile	19	4,5	2
Greater than 1/4 to 1/2 mile	58	4,5	3
Greater than 1/2 to 1 mile	231	4,5	5
Greater than 1 to 2 miles	926	4,5	9
Greater than 2 to 3 miles	1543	4,5	21
Greater than 3 to 4 miles	2160	4,5	13
		Total	53

Apportionment Documentation for a Blended System

The city of Hoopeston uses four wells in the 3 to 4 mile distance ring. All wells are in the same distance ring and apportionment of the population served by each is not necessary.

Ref: 1

Surface Water Pathway Criteria List Suspected Release	
Is surface water nearby? (y/n/u)	Y
Is waste quantity particularly large? (y/n/u)	N
Is the drainage area large? (y/n/u)	N
Is rainfall heavy? (y/n/u)	N
Is the infiltration rate low? (y/n/u)	U
Are sources poorly contained or prone to runoff or flooding? (y/n/u)	N
Is a runoff route well defined(e.g.ditch/channel to surf.water)? (y/n/u)	N
Is vegetation stressed along the probable runoff path? (y/n/u)	N
Are sediments or water unnaturally discolored? (y/n/u)	N
Is wildlife unnaturally absent? (y/n/u)	N
Has deposition of waste into surface water been observed? (y/n/u)	N
Is ground water discharge to surface water likely? (y/n/u)	U
Does analytical/circumstantial evidence suggest S.W. contam? (y/n/u)	Y
Other criteria? (y/n) Y 1983 fish kill in North Fork Vermilion Riv	
SUSPECTED RELEASE? (y/n)	Y

Summarize the rationale for Suspected Release:

In 1983, a fish kill in the North Fork Vermilion River was attributed to a release from the former waste water holding pond. The holding pond was removed in 1991.

The overland flow route to the river is poorly defined. Site runoff appears to be captured by a roadside ditch along the western and northern sides of the site. Runoff flows from these ditches flows through a reinforced concrete box (RCB) to the ditch on the northern side of Route 9. The runoff collects in a drain near the northern end of the RCB. The outfall location for this drain is unknown. D uring periods of high runoff, excess runoff would flow north past the drain, through a broad shallow depression in the adjacent field, to the river about 1/2 mile away.

Ref: 1,2

Surface Water Pathway Criteria List
Primary Targets

Is any target nearby? (y/n/u) If yes: Y
- N Drinking water intake
- Y Fishery
- Y Sensitive environment

Has any intake, fishery, or recreational area been closed? (y/n/u) N

Does analytical or circumstantial evidence suggest surface water contamination at or downstream of a target? (y/n/u) Y

Does any target warrant sampling? (y/n/u) If yes: N
- N Drinking water intake
- U Fishery
- U Sensitive environment

Other criteria? (y/n) N

PRIMARY INTAKE(S) IDENTIFIED? (y/n) N

Summarize the rationale for Primary Intakes:

No drinking water intakes are within the 15 mile downstream target distance.

Ref: 4,6
continued -------

continued -------

Other criteria? (y/n) N

PRIMARY FISHERY(IES) IDENTIFIED? (y/n) Y

Summarize the rationale for Primary Fisheries:

The North Fork Vermilion River is about 1/2 mile northwest of the site. The river is assumed to be a fishery. In 1983, a fish kill in the river was attributed to a release from the waste water holding pond. The holding pond has been removed, and no source of hazardous substances is currently identified at the site.

Ref: 1,4

Other criteria? (y/n) N

PRIMARY SENSITIVE ENVIRONMENT(S) IDENTIFIED? (y/n) Y

Summarize the rationale for Primary Sensitive Environments:

Several forested wetlands are identified along the North Fork Vermilion River. In 1983, a fish kill in the river was attributed to a release from the site.

Ref: 1,7

SURFACE WATER PATHWAY SCORESHEETS

Pathway Characteristics		Ref.
Do you suspect a release? (y/n)	Yes	
Distance to surface water (feet):	2600	4
Flood frequency (years):	500	4
What is the downstream distance (miles) to:		
a. the nearest drinking water intake?	N.A.	4,6
b. the nearest fishery?	0.5	4
c. the nearest sensitive environment?	0.5	4

LIKELIHOOD OF RELEASE	Suspected Release	No Suspected Release	References
1. SUSPECTED RELEASE	550		
2. NO SUSPECTED RELEASE		0	
LR =	550	0	

Drinking Water Threat Targets

TARGETS	Suspected Release	No Suspected Release	References
3. Determine the water body type, flow (if applicable), and number of people served by each drinking water intake.			
4. PRIMARY TARGET POPULATION 0 person(s)	0		
5. SECONDARY TARGET POPULATION Are any intakes part of a blended system? (y/n): N	0	0	
6. NEAREST INTAKE	0	0	
7. RESOURCES	5	0	
T =	5	0	

Drinking Water Threat Target Populations

Intake Name	Primary (y/n)	Water Body Type/Flow	Population Served	Ref.	Value
1 None	N		0		0

Total Primary Target Population Value	0
Total Secondary Target Population Value	0

*** Note : Maximum of 6 Intakes Are Printed ***

Apportionment Documentation for a Blended System

Human Food Chain Threat Targets

TARGETS	Suspected Release	No Suspected Release	References
8. Determine the water body type and flow for each fishery within the target limit.			
9. PRIMARY FISHERIES	300		
10. SECONDARY FISHERIES	0	0	
T =	300	0	

Human Food Chain Threat Targets

Fishery Name	Primary (y/n)	Water Body Type/Flow	Ref.	Value
1 North Fork Vermillion Riv	Y	primary fishery	1,4	300

Total Primary Fisheries Value 300
Total Secondary Fisheries Value 0

*** Note : Maximum of 6 Fisheries Are Printed ***

Environmental Threat Targets

TARGETS	Suspected Release	No Suspected Release	References
11. Determine the water body type and flow (if applicable) for each sensitive environment.			
12. PRIMARY SENSITIVE ENVIRONMENTS	300		
13. SECONDARY SENSITIVE ENVIRONS.	0	0	
T =	300	0	

Environmental Threat Targets

Sensitive Environment Name	Primary (y/n)	Water Body Type/Flow	Ref.	Value
1 Endangered Sp. Habitat	Y	primary sens. envir.	1	300

Total Primary Sensitive Environments Value 300
Total Secondary Sensitive Environments Value 0
*** Note: Maximum of 6 Sensitive Environments Are Printed ***

Surface Water Pathway Threat Scores

Threat	Likelihood of Release(LR) Score	Targets(T) Score	Pathway Waste Characteristics (WC) Score	Threat Score LR x T x WC / 82,500
Drinking Water	550	5	0	0
Human Food Chain	550	300	0	0
Environmental	550	300	0	0

SURFACE WATER PATHWAY SCORE: 0

Soil Exposure Pathway Criteria List
Resident Population

Is any residence, school, or daycare facility on or within 200 feet of an area of suspected contamination? (y/n/u)	N
Is any residence, school, or daycare facility located on adjacent land previously owned or leased by the site owner/operator? (y/n/u)	N
Is there a migration route that might spread hazardous substances near residences, schools, or daycare facilities? (y/n/u)	N
Have onsite or adjacent residents or students reported adverse health effects, exclusive of apparent drinking water or air contamination problems? (y/n/u)	N
Does any neighboring property warrant sampling? (y/n/u)	N
Other criteria? (y/n)	N
RESIDENT POPULATION IDENTIFIED? (y/n)	N

Summarize the rationale for Resident Population:

No residences are within 200 feet of the site.

Ref: 1,2,4

SOIL EXPOSURE PATHWAY SCORESHEETS

Pathway Characteristics		Ref.
Do any people live on or within 200 ft of areas of suspected contamination? (y/n)	No	1,2,4
Do any people attend school or daycare on or within 200 ft of areas of suspected contamination? (y/n)	No	1,2,4
Is the facility active? (y/n):	Yes	1,2

LIKELIHOOD OF EXPOSURE	Suspected Contamination	References
1. SUSPECTED CONTAMINATION LE =	550	

Targets

2. RESIDENT POPULATION 0 resident(s) 0 school/daycare student(s)	0	1,2,4 1,2,4
3. RESIDENT INDIVIDUAL	0	
4. WORKERS 1 - 100	5	1,2
5. TERRES. SENSITIVE ENVIRONMENTS	0	
6. RESOURCES	5	
T =	10	

WASTE CHARACTERISTICS

WC = 0

RESIDENT POPULATION THREAT SCORE: 0

NEARBY POPULATION THREAT SCORE: 1

Population Within 1 Mile: 1 - 10,000

SOIL EXPOSURE PATHWAY SCORE: 1

Soil Exposure Pathway Terrestrial Sensitive Environments

Terrestrial Sensitive Environment Name	Reference	Value
1 None		
Total Terrestrial Sensitive Environments Value		

*** Note : Maximum of 7 Sensitive Environments Are Printed ***

Air Pathway Criteria List
Suspected Release

Are odors currently reported? (y/n/u)	N
Has release of a hazardous substance to the air been directly observed? (y/n/u)	N
Are there reports of adverse health effects (e.g., headaches, nausea, dizziness) potentially resulting from migration of hazardous substances through the air? (y/n/u)	N
Does analytical/circumstantial evidence suggest release to air? (y/n/u)	N
Other criteria? (y/n)	N
SUSPECTED RELEASE? (y/n)	N

Summarize the rationale for Suspected Release:

No odors, direct air releases, reported ill effects, or other evidence of an air release is known.

Ref: 1,2

AIR PATHWAY SCORESHEETS

Pathway Characteristics

		Ref.
Do you suspect a release? (y/n)	No	
Distance to the nearest individual (feet):	400	1,4

LIKELIHOOD OF RELEASE	Suspected Release	No Suspected Release	References
1. SUSPECTED RELEASE	0		
2. NO SUSPECTED RELEASE		500	
LR =	0	500	

Targets

TARGETS	Suspected Release	No Suspected Release	References
3. PRIMARY TARGET POPULATION 0 person(s)	0		
4. SECONDARY TARGET POPULATION	0	8	
5. NEAREST INDIVIDUAL	0	20	
6. PRIMARY SENSITIVE ENVIRONS.	0		
7. SECONDARY SENSITIVE ENVIRONS.	0	0	
8. RESOURCES	0	5	
T =	0	33	

WASTE CHARACTERISTICS

WC =	0	0

AIR PATHWAY SCORE:	0

Air Pathway Secondary Target Populations

Distance Categories	Population	References	Value
Onsite	15	4,5	2
Greater than 0 to 1/4 mile	19	4,5	1
Greater than 1/4 to 1/2 mile	58	4,5	1
Greater than 1/2 to 1 mile	231	4,5	1
Greater than 1 to 2 miles	926	4,5	1
Greater than 2 to 3 miles	1543	4,5	1
Greater than 3 to 4 miles	2160	4,5	1
		Total Secondary Population Value	8

Air Pathway Primary Sensitive Environments

Sensitive Environment Name	Reference	Value
None		

Total Primary Sensitive Environments Value

*** Note : Maximum of 7 Sensitive Environments Are Printed***

Air Pathway Secondary Sensitive Environments

Sensitive Environment Name	Distance	Reference	Value
1 None	onsite		0.0

Total Secondary Sensitive Environments Value

SITE SCORE CALCULATION	SCORE
GROUND WATER PATHWAY SCORE:	0
SURFACE WATER PATHWAY SCORE:	0
SOIL EXPOSURE PATHWAY SCORE:	1
AIR PATHWAY SCORE:	0
SITE SCORE:	0

SUMMARY

1. Is there a high possibility of a threat to any nearby drinking water well(s) by migration of a hazardous substance in ground water? No

   If yes, identify the well(s).

   If yes, how many people are served by the threatened well(s)? 0

2. Is there a high possibility of a threat to any of the following by hazardous substance migration in surface water?
   A. Drinking water intake No
   B. Fishery No
   C. Sensitive environment (wetland, critical habitat, others) No

   If yes, identity the target(s).

3. Is there a high possibility of an area of surficial contamination within 200 feet of any residence, school, or daycare facility? No

   If yes, identify the properties and estimate the associated population(s)

4. Are there public health concerns at this site that are not addressed by PA scoring considerations? No

   If yes, explain:

REFERENCE LIST

1. IEPA, 1991, CERCLA Preliminary Assessment, DM Fertilizer, prepared by Greg Spencer, July 29.

2. Reconnaissance visit to DM Fertilizer, conducted by the USEPA ARCS V Contractor, October 12, 1993.

3. IEPA, 1992, Division of Public Water Supplies, GWM Raw Source Location Report, July 16.

4. US Geological Survey, 7.5 Minute Topographic Maps of Ambia (1964), Hoopeston (1964), Stockland (1964), and Wellington (1977).

5. US Department of Commerce, 1990, Summary of Population and Housing Characteristics Illinois Census.

6. IEPA, 1983, Division of Public Water Supplies, List of Public and Food Processing Water Supplies Utilizing Surface Water, July.

7. US Department of the Interior, Fish and Wildlife Service, National Wetlands Inventory Map for Ambia, 7.5 Minute Quadrangle, April 1983.